EXAMINER'S AMENDMENT

1.   An examiner's amendment to the record appears below. Should the changes and/or

additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR

1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the

payment of the issue fee.

2.   In this Office Action, **claims 1-14, 18-19, 21-25 are cancelled based on the BPAI**

Decision sent on December, 2, 2009.

3.   Authorization for this examiner's amendment was given in a telephone interview with

Mark Brightwell on January 28, 2010 and in compliance with the BPAI Decision sent on

December 2, 2009.

        Amendment to claims 15, 16, and 20, as agreed by the Attorney as follows:

(underlined words indicate to be added, strikethrough words indicate to be deleted)

        15. A method for distributed convolution of stacked digital video data in a plurality of
video data convolve units connected in a chain comprising (for each video data convolve unit):
receiving video pixel data from a video output of a dedicated rendering unit; storing the video
pixel data in a video line buffer;
performing a partial convolution as part of a distributed process to determine values for a
convolved pixel by calculating partial convolution sums for the pixels in the line buffer that are
located within a convolution kernel corresponding to the location of a convolved pixel;
adding the partial convolution sums to any corresponding accumulated partial convolution sums
received from a prior video data convolve unit in the chain to form new accumulated partial
convolution sums, unless the video data convolve unit is the first video data convolve unit in the
chain;
sending the new accumulated partial convolution sums to the next video data convolve unit in
the chain, unless the video data convolve unit is the last video data convolve unit in the chain;
~~The method of claim 14, further comprising:~~
specifying a different jitter value or jitter pattern for each rendering unit; sending vertex data for
each geometric primitive to each rendering unit; rendering pixel values for each jittered pixel
location that lies within a geometric primitive; and
outputting the pixel values.

16. A method for distributed convolution of stacked digital video data in a plurality of video data convolve units connected in a chain comprising (for each video data convolve unit): receiving video pixel data from a video output of a dedicated rendering unit; storing the video pixel data in a video line buffer;
performing a partial convolution as part of a distributed process to determine values for a convolved pixel by calculating partial convolution sums for the pixels in the line buffer that are located within a convolution kernel corresponding to the location of a convolved pixel;
adding the partial convolution sums to any corresponding accumulated partial convolution sums received from a prior video data convolve unit in the chain to form new accumulated partial convolution sums, unless the video data convolve unit is the first video data convolve unit in the chain;
sending the new accumulated partial convolution sums to the next video data convolve unit in the chain, unless the video data convolve unit is the last video data convolve unit in the chain; and
~~The method of claim 14,~~ further comprising for the last video data convolve unit in the chain: determining parameter values for a convolved pixel from the final accumulated partial convolution sums, storing the convolved pixel values in a video output buffer, and outputting the convolved pixel data.

20. A method for distributed convolution of stacked digital video data in a plurality of video data convolve units connected in a chain comprising (for each video data convolve unit): receiving video pixel data from a video output of a dedicated rendering unit; storing the video pixel data in a video line buffer;
performing a partial convolution as part of a distributed process to determine values for a convolved pixel by calculating partial convolution sums for the pixels in the line buffer that are located within a convolution kernel corresponding to the location of a convolved pixel;
adding the partial convolution sums to any corresponding accumulated partial convolution sums received from a prior video data convolve unit in the chain to form new accumulated partial convolution sums, unless the video data convolve unit is the first video data convolve unit in the chain;
sending the new accumulated partial convolution sums to the next video data convolve unit in the chain, unless the video data convolve unit is the last video data convolve unit in the chain; and
~~The method of claim 14,~~ wherein the video pixel data from each rendering unit are determined for primitives that are geometrically expanded in both x and y dimensions by an integer factor of 2 or more; and wherein convolved pixel values are determined from the geometrically expanded pixel data and then assigned to convolved pixel locations determined by reducing the expanded locations by the same integer factor.

Allowable Subject Matter

4.   Claims 15-17, and 20 are allowed.

Reasons for Allowance

5.   The following is an examiner's statement of reasons for allowance:

The prior art made of record fails to anticipate or make obvious the claimed invention.

Specifically, the prior art fails to teach or suggest, in combination with the remaining elements

and/or steps, further comprises specifying a different jitter value or jitter pattern and rendering

pixel values for each jittered pixel … as recited in claim 15; for the last video data convolve unit

in the chain; determining parameter values … as recited in claim 16; and the pixel data from

each rendering unit are determined for primitives that are geometrically expanded in both x and y

dimensions by … as recited in claim 20.

Conclusion

6.   Any comments considered necessary by applicant must be submitted no later than the

payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for

Allowance."

7.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Hau H. Nguyen whose telephone number is: 571-272-7787. The

examiner can normally be reached on MON-FRI from 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kee Tung can be reached on (571) 272-7794.

The fax number for the organization where this application or proceeding is assigned is

571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system contact the Electronic Business Center (EBC) at 866-2 17-9197 (toll-free).

/Hau H Nguyen/

Primary Examiner, Art Unit 2628